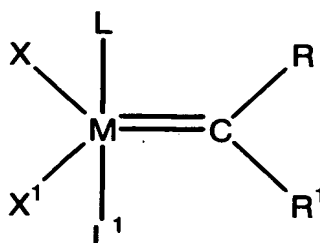


Claims

1. A process for the preparation of a hydrogenated nitrile rubber comprising reacting a nitrile rubber in the presence of hydrogen, optionally at least one co-olefin, and in the presence of at least one compound selected from the group consisting of compounds of the general formula I,



Formula I

wherein

M is Os or Ru,

R and R' are, independently, hydrogen or a hydrocarbon selected from the group consisting of C₂-C₂₀ alkenyl, C₂-C₂₀ alkynyl, C₁-C₂₀ alkyl, aryl, C₁-C₂₀ carboxylate, C₁-C₂₀ alkoxy, C₂-C₂₀ alkenyloxy, C₂-C₂₀ alkynyloxy, aryloxy, C₂-C₂₀ alkoxycarbonyl, C₁-C₂₀ alkylthio, C₁-C₂₀ alkylsulfonyl and C₁-C₂₀ alkylsulfinyl,

X and X' are independently any anionic ligand,

L is any neutral ligand

L' is selected from any 1-3 disubstituted imidazolidinylidene or 1,3 disubstituted imidazolidine ligand,

2. A process according to claim 1 wherein the process occurs in the absence of any co-olefin.

3. A process according to claim 3 wherein either L is a trialkylphosphine and L¹ is an imidazolidinylidene, X and X¹ are chloride ions and M is ruthenium.
- 5 4. A process according to any of claims 1-4 wherein the ratio of compound to nitrile rubber is in the range of from 0.005 to 5.
- 10 5. A process according to any of claims claim 1-5 wherein the process is carried out in an inert solvent selected from the group consisting of monochlorobenzene, dichloromethane, benzene, toluene, tetrahydrofuran and cyclohexane.